Please amend the claims as follows.

1. (Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a crystalline semiconductor film on an insulating surface;

forming an insulating film on said semiconductor film;

introducing a dopant impurity into said semiconductor film through said insulating film by ion doping; and

[heating] annealing said crystalline semiconductor film [to activate said dopant impurity],

wherein a peak of a concentration profile of said dopant impurity is located in said insulating film.

9. (Amended) A method according to claim 1 wherein said semiconductor device comprises an active matrix display device [devices made of] having thin-film transistors.

10. (Amended) A method according to claim 1 wherein said semiconductor device comprises a shift [resistor] register circuit [circuits made of] having thin-film transistors.

12. (Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a crystalline semiconductor film on an insulating [substrate] surface;

forming an insulating film on said semiconductor film;

introducing a dopant impurity into said semiconductor film through said insulating film by ion doping; and

B3 cont.

[irradiating a laser light to] annealing said semiconductor film [to activate said dopant impurity] by irradiating a laser light,

wherein a peak of a concentration profile of said dopant impurity is located in said insulating [surface] film.

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20. (Amended) A method according to claim 12 wherein said semiconductor device comprises an active matrix display device [devices made of] having thin-film transistors.

21. (Amended) A method according to claim 12 wherein said

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semiconductor device comprises a shift [resistor] register circuit [circuits made of] having thin-film transistors.

C3

22. (Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a crystalline semiconductor film on an insulating surface;

forming an insulating film on said semiconductor film;

introducing a dopant impurity into said semiconductor film through said insulating film by ion doping; and

[heating] annealing said crystalline semiconductor film [to activate said dopant impurity],

wherein a peak of a concentration profile of said dopant impurity is located above said insulating [film] surface.

30. (Amended) A method according to claim 22 wherein said semiconductor device comprises an active matrix display device [devices made of] having thin-film transistors.

31. (Amended) A method according to claim 22 wherein said semiconductor device comprises a shift [resistor] register circuit [circuits made of] having thin-film transistors.

33. (Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a crystalline semiconductor film on an insulating [substrate] surface;

forming an insulating film on said semiconductor film;

introducing a dopant impurity into said semiconductor film through said insulating film by ion doping; and

[irradiating a laser light to] annealing said semiconductor film [to activate said dopant impurity] by irradiating a laser light,

B6 cont'd.

wherein a peak of a concentration profile of said dopant impurity is located above said insulating surface.

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41. (Amended) A method according to claim 33 wherein said semiconductor device comprises an active matrix display device [devices made of] having thin-film transistors.

42. (Amended) A method according to claim 33 wherein said semiconductor device comprises a shift [resistor] register circuit [circuits made of] having thin-film transistors.

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43. (Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a crystalline semiconductor film having a portion to become a channel region on an insulating surface;

forming an insulating film on said semiconductor film;

introducing a dopant impurity into at least said portion through said insulating film by ion doping; and

[heating] annealing said crystalline semiconductor film [to activate said dopant impurity],

wherein a peak of a concentration profile of said dopant impurity is located in said insulating film.

44. (Amended) A method according to claim 43 wherein said semiconductor device comprises an active matrix display device [devices made of] having thin-film transistors.

45. (Amended) A method according to claim 43 wherein said semiconductor device comprises a shift [resistor] register circuit [circuits made of] having thin-film transistors.

48. (Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a crystalline semiconductor film having a portion to become a channel region on an insulating surface;

forming an insulating film on said semiconductor film;

introducing a dopant impurity into at least said portion through said insulating film by ion doping; and

[irradiating a laser light to] annealing said semiconductor film [to activate said dopant impurity] by irradiating a laser light,

wherein a peak of a concentration profile of said dopant impurity is located in said insulating [surface] film.

49. (Amended) A method according to claim 48 wherein said semiconductor device comprises an active matrix display device [devices made of] having thin-film transistors.

B8 cont'd.

50. (Amended) A method according to claim 48 wherein said semiconductor device comprises a shift [resistor] register circuit [circuits made of] having thin-film transistors.

Sub C6

52. (Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a crystalline semiconductor film having a portion to become a channel region on an insulating surface;

forming an insulating film on said semiconductor film;

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introducing a dopant impurity into at least said portion through said insulating film by ion doping; and

[heating] annealing said crystalline semiconductor film [to activate said dopant impurity],

wherein a peak of a concentration profile of said dopant impurity is located above said insulating [film] surface.

Sub E1

53. (Amended) A method according to claim 52 wherein said semiconductor device comprises an active matrix display device [devices made of] having thin-film transistors.

B9 Sub E1 cont.

54. (Amended) A method according to claim 52 wherein said semiconductor device comprises a shift [resistor] register circuit [circuits made of] having thin-film transistors.

Sub E1

56. (Amended) A method according to claim 52 further comprising a step of irradiating a laser light to said crystalline semiconductor film.

57. (Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a crystalline semiconductor film having a portion to become a channel region on an insulating surface;

B10

forming an insulating film on said semiconductor film;

introducing a dopant impurity into at least said portion through said insulating film by ion doping; and

[irradiating a laser light to] annealing said semiconductor film [to activate said dopant impurity] by irradiating a laser light,

wherein a peak of a concentration profile of said dopant impurity is located above said insulating surface.

58. (Amended) A method according to claim 57 wherein said semiconductor device comprises an active matrix display device [devices made of] having thin-film transistors.

B10 Cont.

59. (Amended) A method according to claim 57 wherein said semiconductor device comprises a shift [resistor] register circuit [circuits made of] having thin-film transistors.

Please add the following new claims.

-- 61. (New) A method according to claim 1 wherein said annealing step is conducted by a heating.

Sub E1

62. (New) A method according to claim 22 wherein said annealing step is conducted by a heating.

63. (New) A method according to claim 43 wherein said annealing step is conducted by a heating.

64. (New) A method according to claim 52 wherein said annealing step is conducted by a heating.--

REMARKS

Reconsideration and allowance of the above referenced application are respectfully requested.